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ABSTRACT

Following a brief discussion of the heightened academic interest in writing and writing instruction, this paper presents a review of recent theories of the composing process. It next reviews case studies on the composing process. Finally, the paper offers conclusions about the relevance of the research for education. (Author/FL)

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THE COMPOSING PROCESS: A REVIEW OF THE LITERATURE

Ann Humes

ABSTRACT

Background on the current interest in writing is presented. Then the literature on theories of the composing process is discussed. Next, case studies on the composing process are reviewed. Finally, conclusions are stated about the relevance of the literature for education.

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Writing has long been the "stepchild" of the educational community. Educators and researchers have been more interested in students' ability to read than in their ability to write (Graves, 1978; Gundlach, 1980), despite the beneficial effects of writing cited by various authorities (e.g., Stotsky, 1975; Graves, 1978). However, heightened interest in writing is now emerging, stimulated in part by results of community, state, and national assessment projects (e.g., National Assessment of Educational Progress, 1970, 1971). These assessments substantiate what teachers, parents, employers, and students have regarded as self evident: Most people are not proficient writers.

This heightened academic interest in writing provides good opportunity for concomitant advances in research on and development of composition instruction. The review presented here was conducted to ensure that the current literature is considered for its implications for writing instruction.

In general, the literature search revealed a recent and common emphasis on writing as a process rather than a product. This shift in emphasis away from product has partially occurred because prior descriptions of good writing were not accurate (Applebee, 1979). For example, Braddock's (1974) study shattered convictions about the topic sentence when it revealed that only 13% of the expository paragraphs written by professional writers began with a topic sentence, and more than half their paragraphs had no explicit "textbook" topic sentence.

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Shaughessy echoes a concern that educators have too long been preoccupied with the product rather than the process when she states

> . . . the composition course should be the place where the writer not only writes but experiences in a conscious, orderly way the stages of the composing process itself. English teachers have been trained to look for and at the end product (the completed theme) without questioning the writer's way of composing it . . . (p. 81).

Changing the focus to writing as a process is also advocated by such authorities as Irmscher (1979), Winterowd (1975), Nold (1979 a and b), Petty (1978), Gundlach (1977, 1980), Graves (1975, 1978), Larson (1979), Lawrence (1972), Draper (1979), and Taylor (1980).

Despite wider interest in the composing process, the literature still generally deals only with theories of the components of the process and with case studies that involve relatively few students. These theoretical approaches and case studies are discussed below. Studies that analyze students' products rather than students' processes are therefore not included here (e.g., Stahl, 1974; Crowhurst and Piche, 1979). Neither are studies of the language development of students, as determined by analyses of their written discourse (e.g., Loban, 1976; Hunt, 1965).

LITERATURE ON THEORIES OF THE COMPOSING PROCESS

The literature contains nearly as many theories about the composing process as there are proponents of its teaching. A variety of process theories abounds, with authorities posing different numbers of writing-process components and different labels for those components. A representative sample of the many theories is presented below.

A few authorities postulate a writing process with only two components. For example, Elbow (1973) characterizes writing as "a two-step process. First you figure out your meaning, then you put it into language" (p. 14).

Nold's (1979a) early model of the writing process, first appearing in 1977, resembles a flow chart displaying a process that consists of composing and revising. This model is displayed in Figure 1.

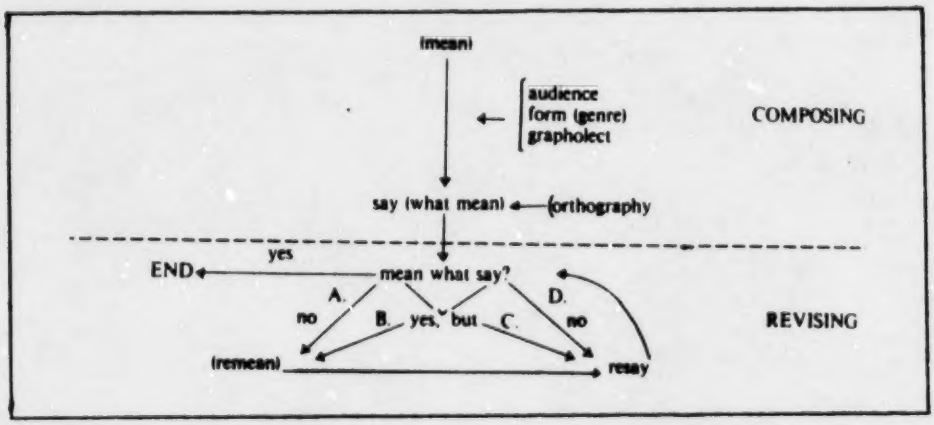

Figure 1: Nold's Early Model of the Writing Process (p. 104)

The "composing" element of Nold's model consists of meaning (constrained by audience/genre/grapholect) that is encoded into written language. The "revising" element consists of changing either the meaning or the "saying" (writing) of the meaning in response to self-questioning. Nold's later model (1979b) differs from this model. Its elements are planning, transcribing, and reviewing.

A three-stage theory is also advocated by Applebee (1979), who avers that "It is quickly apparent that the process has a number of distinct stages. At the simplest level, these include prewriting, writing, and editing" (p. 6). Rohman (1965) also discusses the composing process as comprised of three distinct stages; he calls the stages "prewriting," "writing," and "rewriting" because these labels suggest the rhetorical arts of invention, arrangement, and style. Krashen (1980) concurs with Applebee

and Rohman on both the number (i.e., three) and the linear nature of the components of the process, as does Murray (1978). However, Murray would like to label the components with "terms which may emphasize the essential process of discovery through writing: prevision, vision, and revision" (p. 86). Although Britton (1978) ascribes to a three-stage process (preparation, incubation, and articulation), his labels imply that two of the stages occur before actual transcription.

The sub-stages of a three-stage writing process are delineated by Koch and Brazil (1978).

Prewriting

1. Experiencing
2. Discovering
3. Making Formal Choices

Writing

4. Forming
5. Making Language Choices
6. Languaging

Postwriting

7. Criticizing (self-evaluation)
8. Proofreading

(p. xi)

These sub-stages characterize a linear process that does not allow, for example, "discovering" during actual writing.

A process with four components is hypothesized by Legum and Krashen (1972): conceptualization, planning, writing, and editing. A five-stage linear model of the writing process is promulgated by Draper (1979):

Pre-writing	research, talk, notes, questions, journal observations, etc.
Formulation	identification of audience, purpose, and tone; identification of major ideas, supportive details, effective order; perhaps the design of an outline.

Transcribing	the combined mental and physical acts necessary to get words onto paper in sentences, paragraphs, and sections.
Reformulation	reordering of argument or narrative; sharpening focus, often assisted by a sympathetic reader or editor if the paper is important.
Editing	Proofreading for grammatical errors and syntactical awkwardness; polishing style for readability and interest.

(p. 2)

King (1978) attempted to synthesize these and other disparate models that represent the contribution of composing process theory. Her synthesis defines three linear stages:

Pre-writing:	preparation, conception, incubation, activity, rehearsal
Articulation:	production of text, establishing a stance (vis-a-vis topic and audience), development of topic, signing off
Post-writing:	verification, self-evaluation and editing, response/evaluation from intended audience (i.e., teacher, classmates, etc.)

(p. 198)

King explicates the three superordinate components: "The pre-writing stage here includes all of the preparatory efforts from the point of intention-to-write to conscious thinking, planning, organizing and associating thoughts with language; it includes, also, a period of incubation. . . ." (p. 198). "The second stage of articulation, or production of text, refers to the writer at work putting thoughts on paper. It is a complex psychological process, difficult to understand and research, involving a variety of acts . . ." (p. 198). ". . . post-writing covers the evaluation and editing that often occur as a piece of writing is revised and shaped to fulfill the author's purpose" (p. 199).

Such theories of the composing process generally have limitations because they describe a linear activity despite the work of researchers like Perl (1979) and Flower and Hayes (1980b), who propound a recursive model of composing. Other authorities also characterize the writing process as recursive:

> . . . planning, transcribing and reviewing are not one-time processes, as composition textbooks would have students believe. Rather, the text grows and changes; planning, transcribing and reviewing what has been written occur in irregular patterns (Nold, 1979b, p. 2).
>
> . . . the recursive elements in the writing process should be isolated and understood by students as constituent acts in every episode of writing (Schor, 1976, p. 179).
>
> . . . the process can be viewed as moving generally cyclically, the writer shifting his focus of attention repeatedly among matters of content, style, and structure during each cycle (Young, 1976, p. 34).
>
> . . . [the writer moves] in a series of non-linear movements from one sub-process to another while he constantly moves the force of his attention among matters of content, style, and structure; solving continuous sets and sub-sets of complex cognitive, lexical, syntactical, and rhetorical problems" (Sommers, 1978, pp. 8-9).

In addition to describing a frequently linear nature, these theories reflect a process that describes the "growth of the writing product, not . . . the inner process of the person producing [the product]" (Flower and Hayes, 1980a, p. 3).

Recent literature, however, has introduced a non-linear model, a model that reflects the inner processes of the writer. This model was developed by Flower and Hayes (1980a), and is based on the following four theoretical principles:

1. The process of writing is best understood as a set of distinctive thinking processes which writers orchestrate or organize during the act of composing.

2. The organization of these writing processes is highly recursive.

3. The act of composing itself is a goal-directed thinking process, guided by the writer's own growing network of goals.

4. Writers create their own goals in two key ways: by generating supporting sub-goals which carry out a purpose and by, at times, changing major goals or even establishing entirely new ones in light of what they have learned by writing. (pp. 2-3)

The Flower and Hayes model includes more than the simple stages other writers have discussed. It has three major units: (1) the Task Environment, consisting of everything "outside the writer's skin" (p. 7); (2) the writer's Long-Term Memory; (3) the composing process itself.

Flower and Hayes consider the Problem component of the Task Environment to be crucial at the beginning of composing; the elements of their Rhetorical Problem are topic, audience, and exigency. The second element of the Task Environment is the growing text itself because it imposes constraints on what the writer can subsequently say.

The Long-Term Memory is a storehouse of knowledge that enables writers to solve the Rhetorical Problem during composing. The Composing Process itself, according to Flower and Hayes, consists of Planning, Translating, and Reviewing. Planning includes Generating, Organizing, and Setting Goals. Translating is "essentially the process of putting ideas into visible language" (p. 11). Reviewing, the final recursive element in their process model, includes Editing and Evaluating as subprocesses. Flower and Hayes include a Monitor in the Model as

the "writing strategist which determines when the writer moves from one process to the next" (p. 13).

The Flower and Hayes model is displayed in Figure 2. It is evident that Flower and Hayes have proposed a paradigm that far more closely reflects the inner processes of the writer than do earlier theoretical models. It contains more elements than other models do, and it is recursive. They try to cover everything that relates to composing. Furthermore, case study research on the writing process supports aspects of this model. The Flower and Hayes model thus is valuable for those interested in devising instructional models of the composing process. See Humes (forthcoming) for an expansion of this model for instructional purposes.

RESEARCH ON THE COMPOSING PROCESS: CASE STUDIES

Because interest in writing research is a relatively recent development, there is no coherent research tradition (Gundlach, 1980). "Research on writing is decades behind that on reading. Research on all aspects of writing has produced only about as many studies as has the research on the topic of reading readiness alone" (Graves, 1978, p. 12).

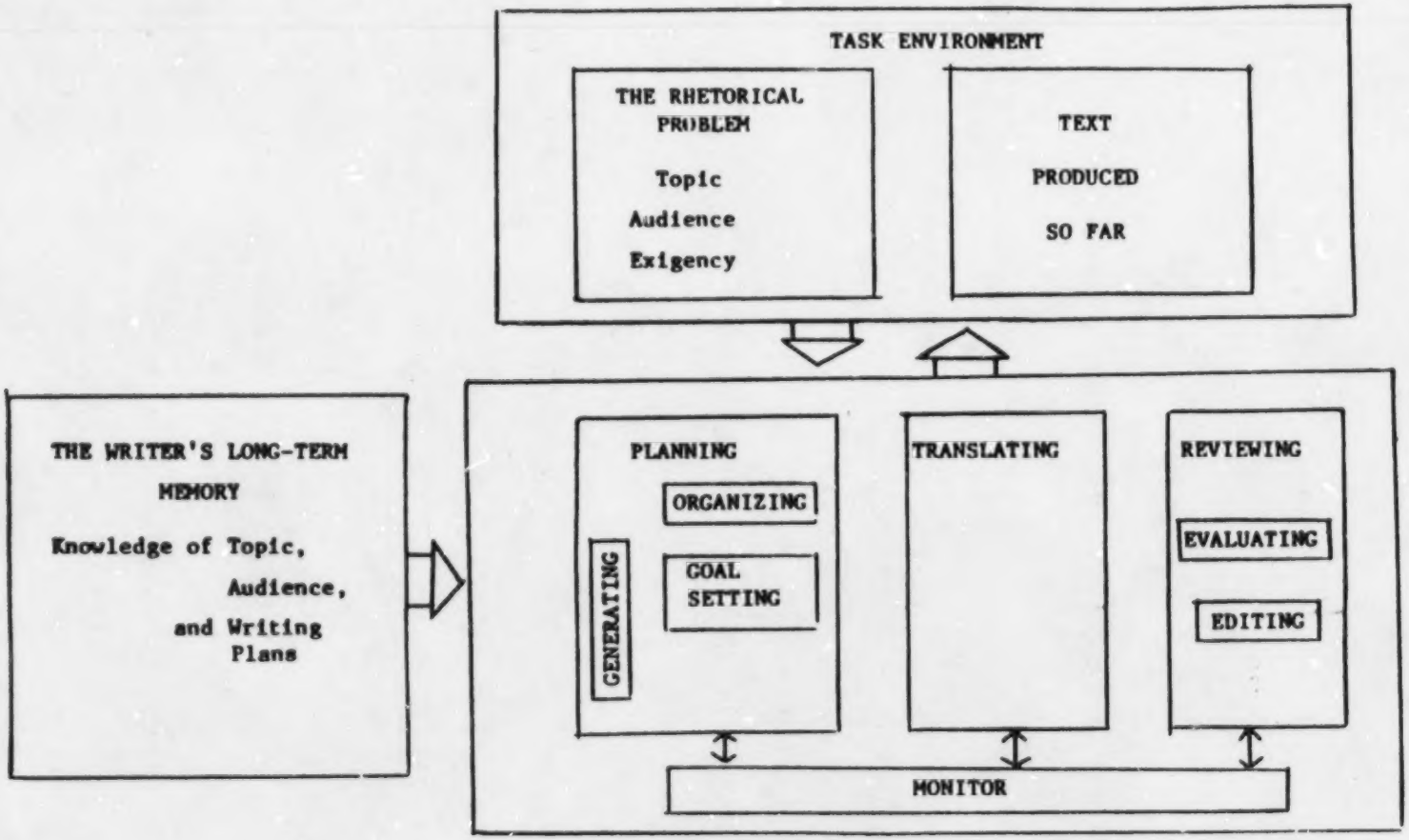

Figure 2. Structure of the Flower and Hayes Model of the Composing Process (1980a, p. 6)

Not only quantity, but also the spectrum of research has been inadequate: Research has generally dealt with "the sentence, the paragraph, usage, and style" (Young, 1978, p. 3). Little has been done on the more global aspects of writing (Braddock, Lloyd-Jones, and Schoer, 1963). Consequently, the literature documents few empirical examinations of the composing process. These investigations generally consist of case studies involving a small number of students.

One of the most significant case studies, because of its pioneering nature, is Emig's (1971) study of eight twelfth graders from public schools. Emig's students were identified as good writers by the chairs of high school English departments. Each subject met four times with the investigator. During those sessions, which were tape-recorded, subjects composed simultaneously in both oral and written performance modes while they were observed by an examiner. The investigator also interviewed each student. Emig found that the composing process for self-sponsored writing (i.e., writing students decided to do themselves) differed from that for school-sponsored writing (i.e., writing assigned by teachers): Although students did little planning and seldom outlined, their planning activities were longer for self-sponsored writing; they also reformulated more and had more clearly discernible moments of starting and stopping.

Mischel (1974) replicated Emig's design with similar results in his study of a 17-year-old high school student referred to as "Clarence." Mischel found that all the planning Clarence did for writing, both at the writing sessions and at home, was mental. His planning time ranged from less than one minute for school-sponsored writing to approximately 20 minutes for an episode of self-sponsored writing. Furthermore, Clarence

paid little attention to correction, although he did spend some time on reordering groups of words. Thus his writing process did not adequately deal with the demands of his writing task.

In another study reported in 1974, amount of planning time also differentiated the writing processes of good writers. Stallard (1974) used an observational checklist, an interview technique, and an analysis of students' written products to investigate the composing behavior of his twelfth grade students. He found that the good student writers spent more time in planning, in completing the assignment (including planning time), in revising, and in contemplating the product, both during and after the first draft.

One finding surprised Stallard because it conflicted with Emig's (1971) conclusions: 66% of Stallard's good writers stated that they worried about such things as grammar, punctuation, and spelling when they wrote, while only 47% of the less able writers had similar concerns. Emig had concluded that good writers worry less about such skills; however, her study did not compare good and poor writers.

Stallard also found that only one student made any kind of outline--four sentences numbered 1-4. No significant differences appeared between the two groups in concern for audience, yet Stallard concluded that "a major behavioral characteristic of the good writer is a willingness to put forth effort to make communication clearer to a reader" (p. 216). This conclusion was predicated on evidence that the good writers revised more, planned more, and stopped longer and more frequently to review what they had written.

Whereas most case studies involve high school or college students, Graves (1975) examined the composing processes of second grade children and concluded that their writing processes have three phases:

> *Prewriting phase*. This phase immediately precedes the writing of the child. Examples of factors related to writing observed in this phase were the contribution of room stimuli to thematic choice, art work behaviors, and discussions with other persons.
>
> *Composing phase*. This phase begins and ends with the actual writing of the message. Examples of phase factors were spelling, resource use, accompanying language, pupil interactions, proofreadings, rereadings, interruptions, erasures, and teacher participation.
>
> *Postwriting phase*. This phase refers to all behaviors recorded following the completion of writing the message. (p. 231)

For a comprehensive review of Graves' case studies, see Gentry (forthcoming).

In another study involving elementary school children, Sawkins (1975), interviewed 60 fifth grade students, 30 boys and 30 girls of "average" ability. Students wrote compositions that were rated on a Diederich scale. The students who wrote the 15 highest and 15 lowest rated compositions were compared. On the basis of the interviews and the analysis of the compositions, Sawkins drew the following conclusions:

1. Writers tend to consider aspects of content before they begin writing and while they are writing.
2. For the most part writers proceed with writing without first having made notes or an outline.
3. Most writers do not have the complete story in mind before they begin writing, but make the story up as they do along and decide on the ending about mid-way through the composition.
4. Fifth grade writers appear to give very little thought to choosing words for particular purposes, to the sentences they are writing, or to the paragraphing they use.

5. Many writers ask the teacher for help for spelling but do not ask for other kinds of help, even though they are aware of problems related to the content of their stories as well as to punctuation, capitalization, and paragraphing.

6. Most writers proofread after writing the first draft in order to check on various aspects of the mechanics of composition as well as, to a more limited degree, matters of content.

7. Most writers who choose to rewrite do so in order to produce a neater appearing paper. (pp. 47-48)

Pianko (1979) examined aspects of the writing processes of remedial and traditional writers. Of the original 24 students, 17 remained throughout the study, 10 remedial and seven traditional. Each student composed a 400-word essay on five different occasions, and students were given an afternoon in which to compose. Students were observed, videotaped, and interviewed. Observers recorded the length of elapsed time and the number of occurrences for writing behaviors. On the basis of the observations and the interviews, Pianko describes these aspects of the composing processes of both the remedial and traditional writers:

1. Most students started writing before they had a complete conception of what they wanted to write.

2. Fourteen of the students did mental planning before they wrote; however, students reported that they did most of their planning during actual composing.

3. Students composed an average of three words per minute; most students paused and scanned and re-scanned during writing.

4. Most students wrote only one draft, reporting that this is their practice when writing must be done in class. Students sometimes wrote more than one draft when they composed at home.

5. When students reread, they went over the entire text to review their accomplishment and revise and proof-read. Occasionally they reread to decide on a conclusion.

6 Students stopped when they thought they had written all they wished about a topic at the time of writing.

For this study, as for many others, the time spent in planning was minimal.

Timing students' writing behavior was also an aspect of a study by Matsuhashi (1979). Matsuhashi videotaped four "competent" high school writers while they wrote two reports, two persuasive papers, and two generalizations.* Profiles of the temporal characteristics of the writers' composing processes were also compiled to describe writers' pausing and transcribing behavior.

Matsuhashi concluded that the purpose for composing affects the length of pauses necessary for both planning and producing a piece of discourse. She also found that pause-time increased according to the type of discourse students were composing, in the following order: reporting, persuading, and generalizing.

Another case study is described by Perl (1979), who examined the composing processes of five unskilled college writers. The writers met with researchers for five separate 90-minute sessions. The data collected were students' written products, tapes of their oral composing, and their responses to interviews.

All students in Perl's study displayed consistent composing processes. Students spent little time in planning, and their planning consisted generally of (1) rephrasing the topic until a word or idea elicited an event in the student's experience, (2) turning a broad topic into two manageable subtopics for writing, and (3) word associating the topic and then developing the associations while composing.

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*Students also wrote two expressive papers, but these papers were not included in her analysis.

During actual writing, recursive movements occurred, and actual editing was undertaken when students became aware of surface features of writing. Editing was concerned with lexicon, syntax, and, to a limited extent, the whole discourse. However, students essays still evidenced serious problems despite revision efforts. Perl thinks this phenomenon may have been caused by the selective perception that characterized students' processes, as well as by their tendency to assume that their readers could understand their text. On the basis of this study, Perl developed the following hypotheses about the composing process:

> 1. Composing does not occur in a straightforward, linear fashion. The process is one of accumulating discrete bits down on the paper and then working from those bits to reflect upon, structure, and then further develop what one means to say . . ..
>
> 2. Composing always involves some measure of both construction and discovery . . .. Rereading or backward movements become a way of assessing whether or not the words on the page adequately capture the original sense intended. Constructing simultaneously affords discovery. (p. 331)

Flower and Hayes (1980b) report on their analysis of their five-year collection of protocols from novice and expert writers. Protocols are transcripts prepared from tape recordings of the "out-loud" thinking of writers as they compose. It should be noted that these tapes are not just records of oral composing, as they were in Emig's study, but also documents of the strategies or problem-solving activities that occur during writing; e.g., "I think I'll start with an anecdote."

Flower and Hayes found that good writers address all elements of the rhetorical problem--their audience, their own persona, and the text. Conversely, poor writers are concerned primarily with the features and conventions of written texts, such as the number of pages to be written.

They also found that (1) expert writers create a rich network of writing goals that help them generate new ideas, while poor writers are concerned with statements about the subject, and (2) good writers represent the rhetorical problem in depth as well as in breadth, continuing to develop their image of the audience, their goals, and the situation as they write, while poor writers frequently do not move beyond their original flat image of the problem. Flower and Hayes generalized their results to say that ". . . good writers are simply solving a different problem than poor writers" (p. 30).

Many of the case studies described above have limitations, such as a sample population that is frequently too small for many generalizable conclusions. Also, writing situations that require students to compose aloud for an audience (either investigator or tape recorder) are unnatural, and such an intrusion can distort the writing process. Additionally, timed-writing constraints do not allow students to become involved in their own composing processes. Furthermore, the validity of writers' responses during their inteviews is questionable: Writers may not accurately report on their current practices because of individual sensitivity; they may not remember well enough to answer questions about past writing behavior; they may tell the investigator what they think he/she wants to hear.

However, these case studies have provided some important information about the composing process. They indicate that composing is recursive, and that planning, including generating and goal-setting, is important. They also suggest that reviewing and revising are important elements of the writing processes of successful writers. Furthermore, it appears that the elements to be considered in solving a writing problem (i.e., purpose, audience, subject, and writer or persona) guide good writers during composing.

CONCLUSION

Neither the theories about the composing process nor the case studies of its operation are currently adequate for describing the composing process. Further investigations of the composing process are necessary before definitive conclusions can be drawn. However, educators cannot wait for researchers to find all the answers; innumerable writers must be trained in the interim. Therfore, it is incumbent upon educators to draw from the best of the knowledge that is now available to at least ameliorate, if not solve, the writing problem.

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